Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CMPI0630　系列
Spec No:	L0630

【For Customer Approval Only】

If you Approval, Please Stamp

【RoHS Compliant Parts】

Approved　By	Checked By	Prepared By
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【Version of Changed Record】

Rev.	Effective Date	Changed Contents	Change Reasons	Approved By
A0	2019-10-29	New release	Internal changes	Li qin hui

1. Scope

This specification applies to the CMPI0630 Series of wire wound SMD power inductor.

2. Product Description and Identification (Part Number)

1) Description:

CMPI0630A series of Wire wound SMD power inductor.

2) Product Identification (Part Number)

CMPI	0630	-	1R0	M
①	②		③	④

① Product Series

② Choke Size

③ Initial Inductance(L @ 0A):1R0=1.0μH

④ Inductance Tolerance:M=L+/-20%

3. Electrical Characteristics

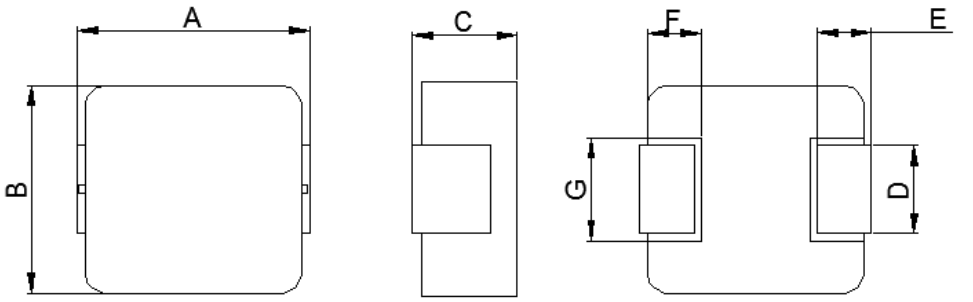
1） Operating temperature range (individual chip without packing): -55℃ ~ +125℃ （Including Self-heating）.

2） Storage temperature range (On PCB): -40℃ ~ +125℃

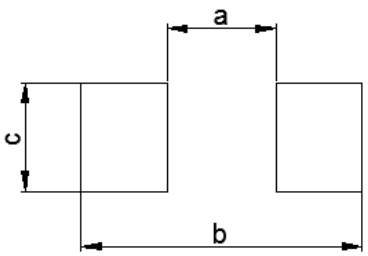
4. Shape and Dimensions (Unit:mm)

Dimensions and recommended PCB pattern for reflow soldering, please see

Mechanical Parameters



Recommended PCB Layout



A	B	C	D	E	F	G	a	b	c
7.10	6.60	3.00	3.00	1.60	2.00	3.60	3.70	8.40	3.50
±0.30	±0.20	Max	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.

Notes:

1. Marking :Ink Marking
2. Stamping XXX :inductor
3. Tolerances are +/-0.15millimeters unless stated otherwise
4. Dimensions of recommended PCB layout are reference only.
5. Do not route traces nor place vias underneath the inductor. Proper layout is required.

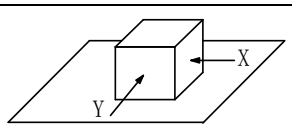
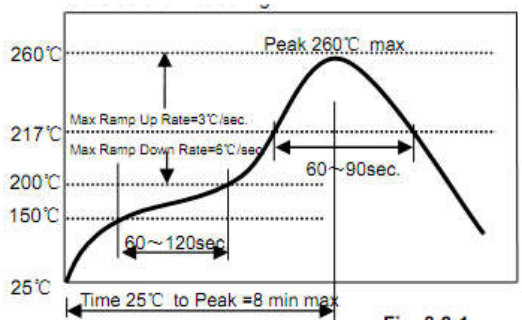
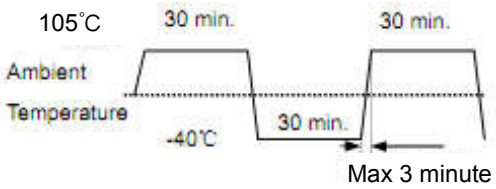
5. Electrical Characteristics

Part Number	L0(uH) ±20%	DCR(mΩ) Max. @25℃	Isat(Amp) Typ.	Irms(Amp) Typ.
CMPI0630-R68M	0.68	7.0	23.0	14.0
CMPI0630-1R0M	1.0	10..0	15.0	12.0
CMPI0630-1R5M	1.5	16.0	15.0	9.0
CMPI0630-2R2M	2.2	22.0	10.0	8.0
CMPI0630-3R3M	3.3	36.5	9.5	6.5
CMPI0630-4R7M	4.7	42.0	6.5	5.5
CMPI0630-5R6M	5.6	44.5	6.0	5.5
CMPI0630-6R8M	6.8	62.0	6.0	5.0
CMPI0630-8R2M	8.2	65.0	5.5	4.5
CMPI0630-100M	10	70.0	5.0	4.0
CMPI0630-150M	15	122	4.0	3.5
CMPI0630-220M	22	200	3.0	2.3

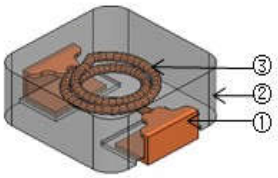
Notes:

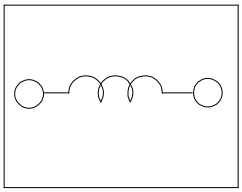
1. Initial Inductance (L_0) Test Parameters:100KHz,1V,Idc=0.0A,+25℃
2. Irms(A): DC current that causes the temperature rise (△T =40° C) from 25° C ambient.
3. Isat(A): DC current at which the inductance drops approximate 30% from its value without current;
4. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

6. Reliability Test

Items	Requirements	Test Methods and Remarks
6.1 Terminal Strength	No removal or split of the termination or other defects shall occur.  Fig.6.1-1	1) Solder the inductor to the testing jig (glass epoxy board shown in Fing.6.1-1) using eutectic solder. Then apply a force in the direction of the arrow. 2) 10N force. 3) Keep time: 5±2s
6.2 High Temperature	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Storage Temperature :125+/-5℃ 2) Duration : 96 ±4 Hours 3) Recovery : then measured at room ambient temperature after placing 24 hours.
6.3 Low Temperature	1. No visible mechanical damage 2. Inductance change: Within ±10%	1) Temperature and time: -40±5℃ 2) Duration: 96±4 hours 3) TRecovery : then measured at room ambient temperature after placing 24 hours.
6.4 Vibration test	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Frequency range:10HZ~55HZ~10HZ 2) Amplitude:1.5mm p-p 3) Direction:X,Y,Z 4) Time:1 minute/cycle,2hours per axis
6.5 High Temperature Storage Tested	1. No visible mechanical damage. 2. Inductance change: Within ±10%	1) Storage Temperature :60+/-2℃ 2) Relative Humidity :90-95% 3) Duration : 96 ±4 Hours 4) Recovery : then measured at room ambient temperature after placing 24 hours.
6.6 Resistance to Soldering Heat	1. No visible mechanical damage. 2. Inductance change: Within ±10%  Fig.6.6-1	1) Re-flowing Profile: Please refer to Fig.6.6-1 2) Test board thickness: 1.0mm 3) Test board material: glass epoxy resin 4) The chip shall be stabilized at normal condition for 1~2 hours before measuring
6.7 Thermal Shock	1. No visible mechanical damage. 2. Inductance change: Within ±10%  Fig.6.7-1	1) Temperature and time: -40±3℃ for 30±3 min→105℃ for 30±3min, please refer to Fig.6.7-1. 2) Transforming interval: Max, 3 minute 3) Tested cycle: 100 cycles 4) The chip shall be stabilized at normal condition for 1~2 hours before measuring

7. MATERIAL LIST

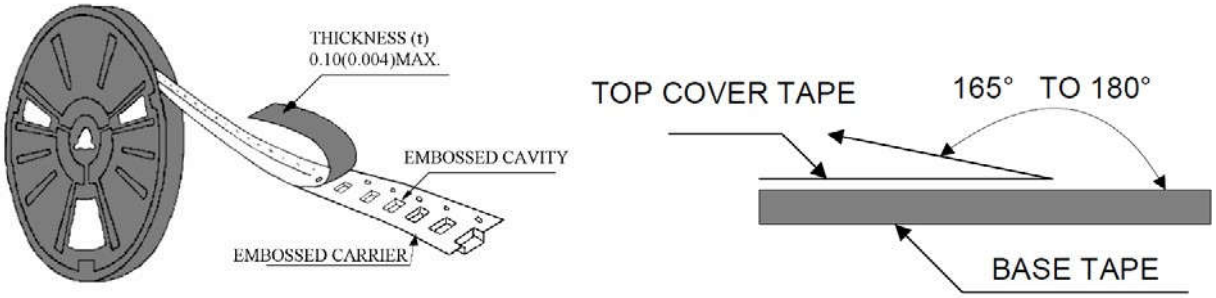




NO.	Part Name	Material
1	Electrode	Cu+Sn plating C1100, Sn:Min.8μm
2	Core	Metal composite core
3	Coil	Copper wire, 220℃

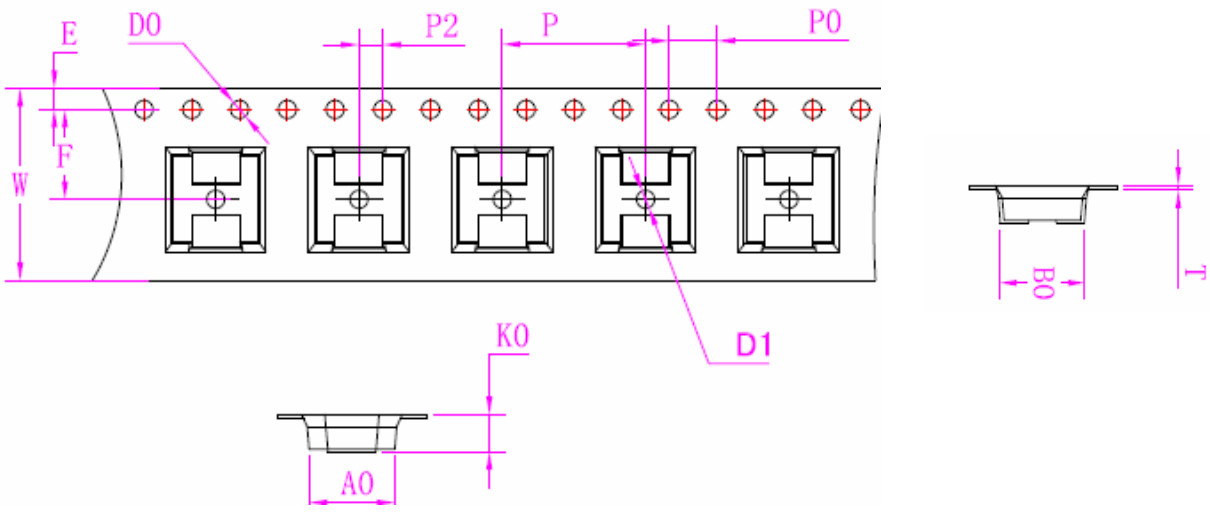
8. PACKAGE INFORMATION-mm

Peel-off Force



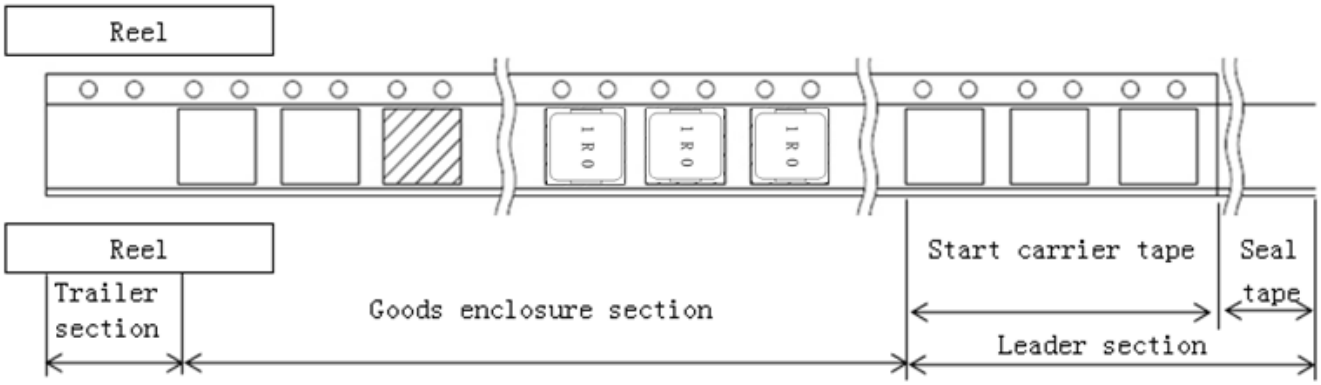
The force for peeling off cover tape is 30 to 100 grams in to arrow direction.

8.1Tape Packaging Dimensions



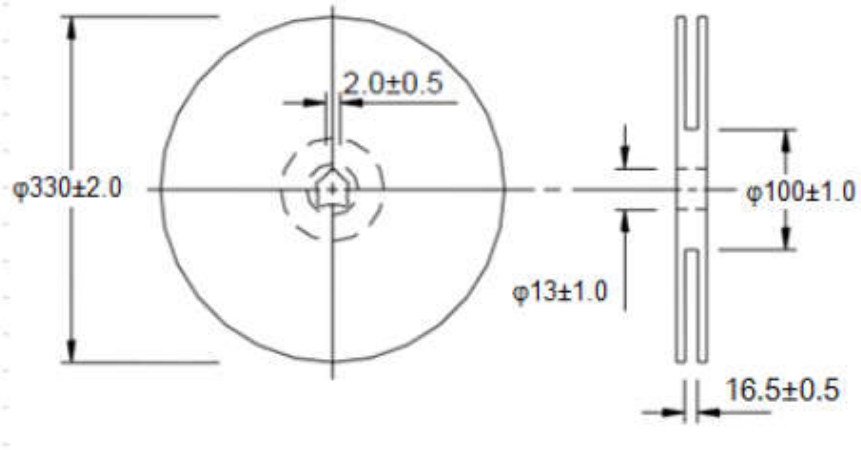
Item	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	16.0	6.9	7.6	3.2	12.0	7.5	1.75	1.5	0.00	4.0	2.0	0.35
Tole	±0.3	Typ.	Typ.	Typ.	±0.1	±0.1	±0.1	±0.1	±0.0	±0.1	±0.1	Typ.

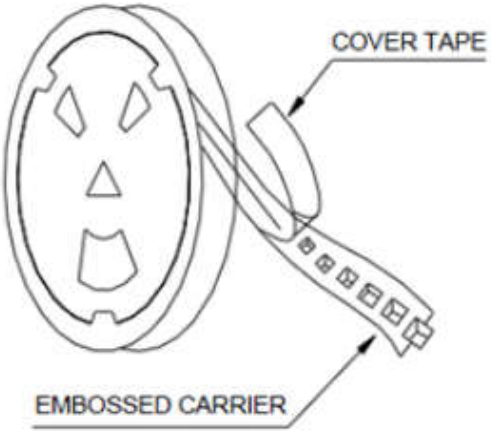
8.2 Taping dimension and tape direction, Leader ,Trailer, section dimension



Leader section	Min.400mm
Carrier tape start size	Min.150mm
Trailer section size	Min.150mm

8.3 Reel Dimensions





8.4 Taping Quantity

1500pieces/Reel,

8.5 Carton

Pizza packaging: 4.5Reel/ Pizza Box

External Packaging :13.5 Boxes/Carton

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